

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

DATE MAILED: 12/15/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,202	10/28/2003	Kenneth A. Jansen	COMP:02561/FLE 4520 20030215	
7590 12/15/2004			EXAMINER	
HEWLETT-PACKARD COMPANY			BUI, HUNG S	
Intellectual Pro	perty Administration			
P.O. Box 2724			ART UNIT	PAPER NUMBER
Fort Collins, C	O 80527-2400		2841	

Please find below and/or attached an Office communication concerning this application or proceeding.

			<i>\mathstrace</i>			
	Application No.	Applicant(s)	·			
Office Andrew Commence	10/695,202	JANSEN, KENNETH A.				
Office Action Summary	Examiner	Art Unit				
	Hung S. Bui	2841				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on	•					
·— ··	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims		•				
4) Claim(s) 1-20 is/are pending in the application 4a) Of the above claim(s) is/are withdray 5) Claim(s) is/are allowed. 6) Claim(s) 1-20 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or	wn from consideration.					
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s)						
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/28/2003. 	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

Application/Control Number: 10/695,202 Page 2

Art Unit: 2841

DETAILED ACTION

Claim Objections

1. Claims 9-16 are objected to because of the following informalities: there is no antecedent basic for "the circuit board holder." Appropriate correction is required.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wark [US 6,710,614] in view of Farnworth [US 6,233,154].

Regarding claims 1, 5 and 8, Wark discloses a server (figures 2a-b) comprising:

- a circuit board (19) comprising a plurality of electrical connector(s)/socket(s) connected memory chips (17) disposed on a first side of the circuit board;
- a chassis (13, figure 2a-b) having at least one of a front opening;
- a board holder (1) operable to receive the circuit board and provide access to the first electrical connector, wherein the board holder is operable to be pivoted relative to the chassis to enable the circuit board to be disposed within the board holder; and
- a securing member operable to selectively secure pivotal movement of the circuit board relative to the chassis.

Wark discloses the instant claimed invention except for the circuit board having a second electrical connector disposed on a second side of the circuit board opposite the first side of the circuit board.

Farnworth et al. disclose a circuit board (62) having a plurality of electrical components (66) mounted on their socket(s)/connector(s) on both sides of the circuit board (figures 3a-b).

It would have been obvious to a person having ordinary skill in the art at the time invention was made to mount electrical components through connector(s)/socket(s) into another side of the circuit board of Wark, as suggested by Farnworth, for the purpose of saving space or providing greater memory capabilities.

Regarding claims 2-3, Wark further discloses the securing member being operable to secure the circuit board in a vertical position (figure 2a) and release the pivotal board holder to enable the circuit board to be pivoted toward a horizontal position (figure 2a).

Regarding claim 4, Wark discloses the board holder being fully disposed within the chassis during operation (figure 2a).

Regarding claim 6, Wark, as modified, further disclose at least one micro_processor assembly connectable to the first electrical connector (column 1, lines 30-36).

Regarding claim 7, Wark, as modified, disclose the instant claimed invention except for an input/out device connectable to the second electrical connector.

Application/Control Number: 10/695,202

Art Unit: 2841

It would have been obvious to a person having ordinary skill in the art at the time invention was made to add an input/out device to connect to the second electrical connector of the circuit board of Wark, as modified, for the purpose of enabling replacement device.

Regarding claims 9-20, the claimed method steps are inherit in the product structures.

Regarding claims 17-20, Wark discloses a server (figure 3) comprising:

- means (5) for pivoting a circuit board holder relative to a server chassis;
- means (25) for selectively securing/releasing the circuit board holder in a first position to a second position relatively to the server chassis; and
- means (socket to connect a chip 17) for coupling at least one memory component to each of a first side of the circuit board.

Wark discloses the instant claimed invention except for the circuit board having a means for coupling at least one electronic component being mounted on the second side of the circuit board opposite the first side of the circuit board.

Farnworth et al. disclose a circuit board (62) having a plurality of electrical components (66) mounted on their socket(s)/connector(s)/means on both sides of the circuit board (figures 3a-b).

It would have been obvious to a person having ordinary skill in the art at the time invention was made to mount electrical components through socket(s)/means into the second side of the circuit board of Wark, as suggested by Farnworth, for the purpose of saving space or providing greater memory capabilities.

Application/Control Number: 10/695,202

Art Unit: 2841

Conclusion

4. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hung S. Bui whose telephone number is (571) 272-

2102. The examiner can normally be reached on Monday-Friday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

12/11/04

HB

KAMAND CLINED

Page 5

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800